

Amendments to the Claims

The current listing of the claims replaces all previous amendments and listings of the claims.

1.-23. (Canceled)

24. (Currently Amended) A sheet-like medium alignment apparatus comprising:

[[a]] means for aligning and loading a sheet-like medium ejected on a loading means ~~with~~ from an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position; and

~~a returning~~ means for moving the sheet-like medium toward the end fence and for aligning the sheet-like medium by applying a force to the sheet-like medium on the loading means,

wherein said ~~returning~~ means for moving is ~~adapted to be located~~ locatable at different positions in the direction of ejection, and the means for moving comprises a rotatable and drivable roller.

25. (Currently Amended) The sheet-like medium alignment apparatus according to claim 24, wherein the means for moving is locatable such that a distance between ~~one of~~ said different positions ~~and another one of the different position~~ is greater than an amount of variation in ~~the~~ a position of a trailing edge of the sheet-like medium when ejected on the loading means.

26. (Currently Amended) The sheet-like medium alignment apparatus according to claim 25, wherein ~~the one of~~ said different positions ~~is a~~ comprise first and second stop positions, the first stop position upstream from the another one of the different positions in the direction of ejection, without interference from the second stop position, the first stop position located such that when the means for moving is disposed in the first stop position the

means for moving does not interfere with the loaded sheet-like medium ejected from the ejecting means, and the ~~another one of the different positions is~~ a second stop position ~~downstream from the first stop position in the direction of ejection and contactable with a~~ located such that when the means for moving is disposed in the second stop position the means for moving is configured to contact an upper surface of the sheet-like medium on the loading means.

27. (Currently Amended) The sheet-like medium alignment apparatus according to claim 26, wherein the different positions comprise a third stop position ~~is provided~~ between the first stop position and the second stop position.

28. (Currently Amended) The sheet-like medium alignment apparatus according to claim 24, further comprising:

a displacement means ~~capable of reciprocating at least~~ configured to reciprocate in said direction of ejection.

29. (Currently Amended) The sheet-like medium alignment apparatus according to claim 28, wherein said displacement means comprises:

a first member ~~extending longitudinally, wherein its intermediate is position pivoted on an immovable~~ configured to pivot on a fixed member[[,]] and said first member is ~~installed to allow rocking~~ configured to pivot about a first pivot portion within a predetermined angle; and

a second member ~~extending longitudinally, wherein its intermediate position is pivoted on one free end side separated from the first pivot portion~~ configured to pivot on the first member[[,]] and said second member is ~~installed to allow rocking~~ configured to pivot about a second pivot portion within a predetermined angle;

wherein the ~~returning~~ mean for moving is ~~pivoted on a desired free end off a rotational center~~ configured to pivot on the second pivot portion of the second member, and

the ~~returning~~ means for moving is ~~shifted to a~~ configured to shift between the different position in the direction of ejection by a combination between positions by rocking of the first member and rocking of the second member.

30. (Currently Amended) The sheet-like medium alignment apparatus according to claim 29, wherein the first member is configured to be rocked about the first pivot portion by a first rocking device ~~installed on a free end side opposite to where the second member is installed.~~

31. (Currently Amended) The sheet-like medium alignment apparatus according to claim 30, wherein the first rocking device comprises an eccentric cam ~~rotating~~ configured to rotate in contact with ~~the free~~ an end of the first member and a first contacting device ~~for contacting~~ configured to contact the eccentric cam with the ~~free end of the first member.~~

32. (Currently Amended) The sheet-like medium alignment apparatus according to claim 31, wherein the eccentric cam is ~~driven by~~ configured to be driven by a stepping motor and an amount of rotation is configured to be controlled by an encoder.

33. (Currently Amended) ~~The~~ A sheet-like medium alignment apparatus ~~according to claim 31~~ comprising:

means for aligning and loading a sheet-like medium ejected on a loading means from an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position;

means for moving the sheet-like medium toward the end fence and for aligning the sheet-like medium by applying a force to the sheet-like medium on the loading means; and

a displacement means configured to reciprocate in said direction of ejection,

wherein said means for moving is locatable at different positions in the direction of ejection.

wherein said displacement means comprises a first member configured to pivot on a fixed member and configured to pivot about a first pivot portion within a predetermined angle, and a second member configured to pivot on the first member and configured to pivot about a second pivot portion within a predetermined angle, wherein the means for moving is configured to pivot on the second pivot portion of the second member, and the means for moving is configured to shift between the different positions by rocking of the first member and rocking of the second member,

wherein the first member is configured to be rocked about the first pivot portion by a first rocking device,

wherein the first rocking device comprises an eccentric cam configured to rotate in contact with an end of the first member and a first contacting device configured to contact the eccentric cam with the end of the first member, and

wherein the first contacting device comprises an elastic device disposed between the first member and the fixed member.

34. (Currently Amended) The sheet-like medium alignment apparatus according to claim 29, wherein the second member is configured to be rocked by a second rocking device installed disposed to act on the free an end opposite to where said ~~returning member means~~ for moving is installed with the second pivot portion located ~~in-between-on-the-second member~~ therebetween.

35. (Currently Amended) ~~The~~ A sheet-like medium alignment apparatus according to ~~claim 34~~ comprising:

means for aligning and loading a sheet-like medium ejected on a loading means from an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position;

means for moving the sheet-like medium toward the end fence and for aligning the sheet-like medium by applying a force to the sheet-like medium on the loading means; and a displacement means configured to reciprocate in said direction of ejection, wherein said means for moving is locatable at different positions in the direction of ejection,

wherein said displacement means comprises a first member configured to pivot on a fixed member and configured to pivot about a first pivot portion within a predetermined angle, and a second member configured to pivot on the first member and configured to pivot about a second pivot portion within a predetermined angle, wherein the mean for moving is configured to pivot on the second pivot portion of the second member, and the means for moving is configured to shift between the different positions by rocking of the first member and rocking of the second member,

wherein the second member is configured to be rocked by a second rocking device disposed to act on an end opposite to where said means for moving is installed with the second pivot portion located therebetween, and

wherein the second rocking device is comprises a cam sliding along the free end on a desired side off the center of the second pivot portion configured to slide on the second member and comprises, a flat plate cam with a protrusion formed on a portion, and a second contacting device for allowing said free configured to allow the end to contact with said flat plate cam.

36. (Currently Amended) The sheet-like medium alignment apparatus according to claim 35, wherein the flat plate cam is ~~located upward of~~ disposed above the free end of the second member.

37. (Currently Amended) ~~The~~ A sheet-like medium alignment apparatus ~~according to claim 29 comprising:~~

means for aligning and loading a sheet-like medium ejected on a loading means from an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position;

means for moving the sheet-like medium toward the end fence and for aligning the sheet-like medium by applying a force to the sheet-like medium on the loading means; and
a displacement means configured to reciprocate in said direction of ejection,
wherein said means for moving is locatable at different positions in the direction of ejection,

wherein said displacement means comprises a first member configured to pivot on a fixed member and configured to pivot about a first pivot portion within a predetermined angle, and a second member configured to pivot on the first member and configured to pivot about a second pivot portion within a predetermined angle, wherein the mean for moving is configured to pivot on the second pivot portion of the second member, and the means for moving is configured to shift between the different positions by rocking of the first member and rocking of the second member,

wherein the displacement device ~~has~~ comprises a power transmission system ~~adapted~~ configured to drive the ~~returning~~ means for moving and, said power transmission system comprises pulleys and a belt, the pulleys ~~rotating~~ configured to rotate about a pivoting center of said first pivot portion and second pivot portion and the belt ~~applied to~~ surrounding the pulleys.

38. (Currently Amended) The sheet-like medium alignment apparatus according to claim 37, wherein the displacement device is configured to transmit a rotation power is transmitted to said ~~returning~~ means for moving by the pulleys and the belt~~[[;]]~~, and to apply the rotation power ~~is applied~~ to the second member using a frictional force between the

~~returning~~ means for moving and a pivoting shaft integral with the second member provided by the tension of the belt, ~~whereby the function of the second contacting device is fulfilled.~~

39. (Currently Amended) The sheet-like medium alignment apparatus according to claim 24, ~~wherein~~ further comprising:

a controlling device ~~is provided~~ configured to ensure that retaining operation by the ~~returning~~ means for moving is performed after the sheet-like medium has been ejected onto the loading means.

40. (Currently Amended) The sheet-like medium alignment apparatus according to claim 39, wherein the controlling device is configured to trigger operation of the ~~returning~~ means ~~is triggered by timing~~ for moving by determining when an ejection sensor ~~installed in a most downstream portion in the transport system sensor has detected that there is no~~ detects an absence of the sheet-like medium.

41. (Currently Amended) The sheet-like medium alignment apparatus according to claim 24, wherein the ~~returning~~ means for moving is ~~movable~~ configured to be moved between ~~the~~ a first stop position in which the means for moving does not interfere with the sheet-like medium loaded on the loading means and ~~the~~ a second stop position in which ~~may~~ the means for moving is permitted to interfere with the sheet-like medium loaded on the loading means, and the sheet-like medium alignment apparatus further comprises:

a controlling device ~~is provided~~ configured to ensure that, subsequent to the movement of the ~~returning~~ means for moving to the second stop position, movement of the means for moving is stopped for a predetermined time ~~when the sheet-like medium returned by the returning means is pressed against the vertical wall~~ interval, and then to move the ~~returning~~ means ~~is moved~~ for moving to the first stop position.

42. (Currently Amended) The sheet-like medium alignment apparatus according to claim 41, ~~wherein~~ further comprising:

a controlling device ~~is provided~~ configured to ensure that a time ~~when~~ interval during which the ~~returning~~ means for moving is stopped at the second stop position is variable according to at least one of a quality, size and number of ~~the~~ sheet-like media ejected to be onto the loading means.

43. (Currently Amended) The sheet-like medium alignment apparatus according to claim 41, ~~wherein~~ further comprising:

a controlling device ~~is provided~~ configured to ensure that a speed at which the ~~returning~~ means for moving moves from the first stop position to the second stop position is slower than a ~~returning~~ speed of the sheet-like medium ~~by~~ moved via the ~~returning~~ means for moving.

44. (Currently Amended) The sheet-like medium alignment apparatus according to claim 41, ~~wherein~~ further comprising:

a controlling device ~~is provided~~ configured to ensure that the ~~returning~~ means for moving is moved to the first stop position when a jam ~~has occurred~~ occurs in a sheet transport path upstream from the ejecting means.

45. (Currently Amended) The sheet-like medium alignment apparatus according to claim 44, ~~wherein~~ further comprising:

a controlling device ~~is provided~~ configured to ensure that the ~~returning~~ means for moving is disabled ~~in the alignment operation~~ after detecting a failure of the ~~returning~~ means ~~has been detected~~ for moving.

46. (Currently Amended) The sheet-like medium alignment apparatus according to claim 41, wherein the ~~returning means~~ roller comprises a returning roller, and ~~the~~ a drive speed when the returning roller is located at the first stop position is slower than ~~the~~ a drive speed when ~~it~~ the returning roller is located at the second stop position.

47. (Currently Amended) ~~The~~ A sheet-like medium alignment apparatus ~~according~~
~~to claim 46 comprising:~~

means for aligning and loading a sheet-like medium ejected on a loading means from
an ejecting means by pressing an end of said sheet-like medium on an upstream side in a
direction of ejection of said sheet-like medium against an end fence provided at an alignment
position; and

means for moving the sheet-like medium toward the end fence and for aligning the
sheet-like medium by applying a force to the sheet-like medium on the loading means,

wherein said means for moving is locatable at different positions in the direction of
ejection,

wherein the means for moving is configured to be moved between a first stop position
in which the means for moving does not interfere with the sheet-like medium loaded on the
loading means and a second stop position in which the means for moving is permitted to
interfere with the sheet-like medium loaded on the loading means, and the sheet-like medium
alignment apparatus further comprises a controlling device configured to ensure that,
subsequent to movement of the means for moving to the second stop position, movement of
the means for moving is stopped for a predetermined time interval, and then to move the
means for moving to the first stop position,

wherein the means for moving comprises a returning roller, and a drive speed when
the returning roller is located at the first stop position is slower than a drive speed when the
returning roller is located at the second stop position, and

wherein a return rotating speed of the returning roller at the second stop position is set
to a value at which the sheet-like medium is not pushed out in the direction of ejection
~~even if~~
the when a trailing edge of the sheet-like medium contacts the returning roller.

48. (Currently Amended) ~~The~~ A sheet-like medium alignment apparatus ~~according to claim 41~~ comprising:

means for aligning and loading a sheet-like medium ejected on a loading means from an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position; and

means for moving the sheet-like medium toward the end fence and for aligning the sheet-like medium by applying a force to the sheet-like medium on the loading means,

wherein said means for moving is locatable at different positions in the direction of ejection,

wherein the means for moving is configured to be moved between a first stop position in which the means for moving does not interfere with the sheet-like medium loaded on the loading means and a second stop position in which the means for moving is permitted to interfere with the sheet-like medium loaded on the loading means, and the sheet-like medium alignment apparatus further comprises a controlling device configured to ensure that, subsequent to movement of the means for moving to the second stop position, movement of the means for moving is stopped for a predetermined time interval, and then to move the means for moving to the first stop position, and

wherein a rotating speed of the returning roller at the first stop position is set to a constant value at all times, independently of a printing speed of an image forming apparatus to be connected.

49.-55. (Canceled)

56. (Currently Amended) An image forming apparatus comprising:

~~an image forming~~ means for forming an image on a sheet-like medium;

~~a-transporting~~ means for transporting said sheet-like medium with the formed image;
and

a sheet-like medium alignment apparatus comprising:

[[a]] means for aligning and loading the sheet-like medium ejected on a loading means ~~with~~ from an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position; and

~~a-returning~~ means for moving the sheet-like medium toward the end fence and for aligning the sheet-like medium by applying a force to the sheet-like medium on the loading means,

wherein said ~~returning~~ means for moving is ~~adapted to be located~~ locatable at different positions in the direction of ejection, and the means for moving comprises a rotatable and drivable roller.

57. (Currently Amended) A sheet-like medium treatment apparatus comprising:

~~a-post-treatment~~ means for ~~carrying out~~ performing a post-treatment of a sheet-like medium;

~~a-transporting~~ means for transporting said post-treated sheet-like medium; and
a sheet-like medium alignment apparatus comprising

[[a]] means for aligning and loading the sheet-like medium ejected on a loading means ~~with~~ from an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position; and

~~a-returning~~ means for moving the sheet-like medium toward the end fence and for aligning the sheet-like medium by applying a force to the sheet-like medium on the loading means,

wherein said returning means for moving is ~~adapted to be located~~ locatable at different positions in the direction of ejection, and the means for moving comprises a rotatable and drivable roller.

58.-89. (Canceled)

90. (Currently Amended) A sheet-like medium alignment apparatus comprising:

a device configured to align and load a sheet-like medium ejected on a loading device from an ejecting device by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position; and

a returning device configured to move the sheet-like medium toward the end fence and to align the sheet-like medium by applying a force to the sheet-like medium on the loading device,

wherein said returning device is ~~adapted to be located~~ locatable at different positions in the direction of ejection, and the returning device comprises a rotatable and drivable roller.

91. (Currently Amended) An image forming apparatus comprising:

an image forming device configured to form an image on a sheet-like medium;

a transporting device configured to transport said sheet-like medium with the formed image; and

a sheet-like medium alignment apparatus comprising:

a device configured to align and load the sheet-like medium ejected on a loading device from an ejecting device by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position; and

a returning device configured to move the sheet-like medium toward the end fence and to align the sheet-like medium by applying a force to the sheet-like medium on the loading device,

wherein said returning device ~~is adapted to be located~~ locatable at different positions in the direction of ejection, and the returning device comprises a rotatable and drivable roller.

92. (Currently Amended) A sheet-like medium treatment apparatus comprising:
a post-treatment device configured to ~~carry out~~ perform a post-treatment of a sheet-like medium;
a transporting device configured to transport said post-treated sheet-like medium; and
a sheet-like medium alignment apparatus comprising
a device configured to align and load the sheet-like medium ejected on a loading device from an ejecting device by pressing an end of said sheet-like medium on an upstream side in a direction of ejection of said sheet-like medium against an end fence provided at an alignment position; and

a returning device configured to move the sheet-like medium toward the end fence and to align the sheet-like medium by applying a force to the sheet-like medium on the loading device,

wherein said returning device is ~~adapted to be located~~ locatable at different positions in the direction of ejection, and the returning device comprises a rotatable and drivable roller.